

Figure 1.

1 HILKQSERRSWSYRPWNTTENEGSQHRSICSLGARSGSQASIHGWTEGNYNYYIEEDED KV10.1.PRC
 1 HT-----KHGSRSTSLLPP----- KV2.1.PRC
 1 HAE-----KAPPGLNRKTSSRSTSLLPP----- KV2.2.PRC

61 GEEEDQWKDDOLAEEDQQAGEVTTAKPEGPSDPPALLSTLNHVGGHSYQLDYCELAGFFK KV10.1.PRC
 15 -----EPMSIVRSKACCSR----- VRLNVGGGLAHEVLWRTELDRLPRP KV2.1.PRC
 23 -----EPVDIIRSKTCSSR----- VKINVGGLNREVLWRTLDREPRP KV2.2.PRC

121 TRLGRLATSTSRSRQLSLCDDYEEQTDIEYFFDRDPAVFQLVYNEFZLSGVLLVLDGLCPRR KV10.1.PRC
 51 TRLGKLRLDCNTHDSLLEVCDDYSLDDNEYFFDRHPGAFTSILNFYRTGRHLHMEENCALS KV2.1.PRC
 59 TRLGKLRLDCNTHESLLEVCDDYNLNEHEYFFDRHPGAFTSILNFYRTGKHLHMEENCALS KV2.2.PRC

181 FLEELGWWGVRLKVTPRCCRICPEERRDELSERLKIQHELRAQAGVEEAEE2LFRDMRIFYG KV10.1.PRC
 111 FSQELDYWGIDEIYLESCCQCARYHQKEQHNEELKREAETLRERESEE-----F-DNTCCA KV2.1.PRC
 119 FGQELDYWGIDEIYLESCCQCARYHQKEQHNEELRREAETHRDGESEE-----F-DNTCCP KV2.2.PRC

241 PQRRRLWNLMERPFSSVAAKAIGVASSSTFVLVSVVVALALNTVEEMHQSGQQGEGGPDLRP KV10.1.PRC
 166 EKRKKLWLLEKPNSSVAAKILAIISIMFIVLSTIALSNTLPELQSLDEFGQSTDN----P KV2.1.PRC
 174 DKKRKKLWLLEKPNSSVAAKILAIIVSILFIVLSTIALSNTLPELQETDEFGQLNDN----R KV2.2.PRC

301 ILEHVEMLCMGFTLEYLLRLASTPDRLRFARSALNLVDLVAILPLYLQQLLLECPTGEGH KV10.1.PRC
 224 QLAHVEAVCIAMFTHEYLLRFLSSPKWKFFFKGPLNAIDLALILPPYYVTIFLT----- KV2.1.PRC
 232 QLAHVEAVCIAMFTHEYLLRFLSSPKWKFFFKGPLNVIDLALILPPYYVTIFLT----- KV2.2.PRC

361 QRGGQTVGSGVKVGQVLRVMRLHRIPRILKLAHRHSTGLRAFGFTLPCQCYQQVGCLLFIAH KV10.1.PRC
 277 ESNKSVLQFQNVRRVVQIFRIMRILRILKLAHRHSTGLQSLGFTLRRSYNELGLLILFLAN KV2.1.PRC
 285 ESNKSVLQFQNVRRVVQIFRIMRILRILKLAHRHSTGLQSLGFTLRRSYNELGLLILFLAN KV2.2.PRC

421 GIFTFSAAVYSVHDVPSSTNFTTIPHSWHWAAVSISTVGYGDNYPETHLGRRFAFLCIAF KV10.1.PRC
 337 GIHIFSSLVFFAEKDEDATKFTSIPASFWWATITHTTVGYGDIYPKTLGLCKIVGGGCCIA KV2.1.PRC
 345 GIMIFSSLVFFAEKDEDATKFTSIPASFWWATITHTTVGYGDIYPKTLGLCKIVGGGCCIA KV2.2.PRC

481 GILNGMPISILYUKFSDYNSKLKAYEYTTIRRE-----RCEVNPHQ--RARKKIAEC KV10.1.PRC
 397 GVLVIALPIPIIIVNNFSEFYKEQKRQEKAIRREALERAKRNGSIVSHNWKDAFARSIEK KV2.1.PRC
 405 GVLVIALPIPIIIVNNFSEFYKEQKRQEKAIRREALERAKRNGSIVSHNWKDAFARSIEL KV2.2.PRC

532 LL-----GSNPOLTPR-QEN. KV10.1.PRC
 457 MDIVIVEKNGENMGKKDKVQDNHLSPNWKWTKRTLSETSSSKSFETKZQGSPENKARS--- KV2.1.PRC
 465 IDVAVAKEAGESANTKDSADDNHLSPSRWKMARKALSETSSNKSFEKYQEVSQKDSDHEQL KV2.2.PRC

546 KV10.1.PRC
 514 ----SSSPQHLSNVQOLEDMDYNKMAKTQ--SQPILNTE SAAQSKP -KEELEMESIPS PVA KV2.1.PRC
 525 NNTFSSSPQHLSAQKLENLYNEITKTQPHSHPNPDCQEKPERPSAYEEPEIEMEEEVVGCPQE KV2.2.PRC

546 KV10.1.PRC
 567 PLP-TRTEGVIDHRSMSSIDSFISCATDFPEATRFSHSPLTSPLPSKTGGSTAPEGWGRGA KV2.1.PRC
 585 QLAVAGTEVIVDHKSTSSIDSFTSCATDFTETER----SPLPPPSASHLQM---- KV2.2.PRC

546 KV10.1.PRC
 626 LGASGGGRFVEANPSPDASQHSSPFIESPKSSMKTNNPLKLRAALKVNPFREGDOPSPPLPVLG KV2.1.PRC
 632 ----KEPTDLPGTEEHQRAR--GPPFLTLSREKGPAARDGTLLEYAPVDTITVNLDA SG KV2.2.PRC

546 KV10.1.PRC
 686 H---YHDPLRNRCGAAAAGLECATLIDKAVI-SPESSIYTASAKTFPPRSPEKHTAIAP KV2.1.PRC
 683 SQCGLHSPLQSDNATOSPKSSLKGSNPLKSRSLKVNFKENRGSAQTPPPSTARPLPVTTA KV2.2.PRC

546 KV10.1.PRC
 743 NFEAGVHGYIDADTDDEGGQLLYSVDSSPPKSLPGSTSPKFSTGTPSEKNHFESSPLPTSP KV2.1.PRC
 743 DFSLTTPOHIST----ILL---EETPSQGDRPCWALRFQRLVRDL----PKGCPP KV2.2.PRC

546 KV10.1.PRC
 803 KFLRQNCIYSTEALTGKGPGSGQEKCKEHNISPDVRLPGGGAHGSTRDQSIX KV2.1.PRC
 787 GFPSSRHCSLS-----MQERGGASLK KV2.2.PRC

Figure 2.

472 F F A F L C I A F G I I L N G M P I S I L Y N K F S Kv10.1
439 V V A L S S I L S G I L L M A F P V T S I F H T F S Kv6.1
388 I V G G L C C I A G V L V I A L P I P I V N N F S Kv2.1

Figure 3

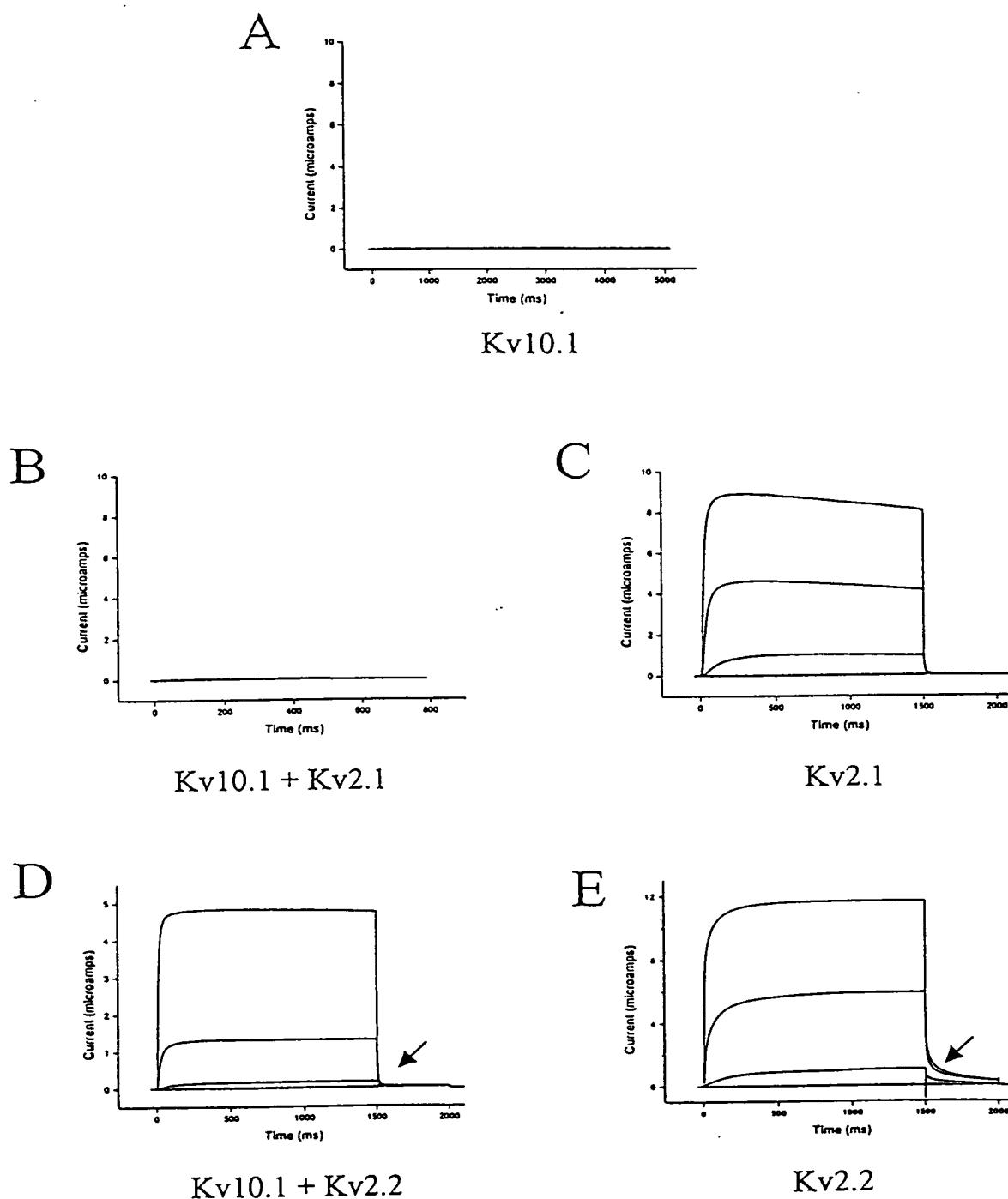
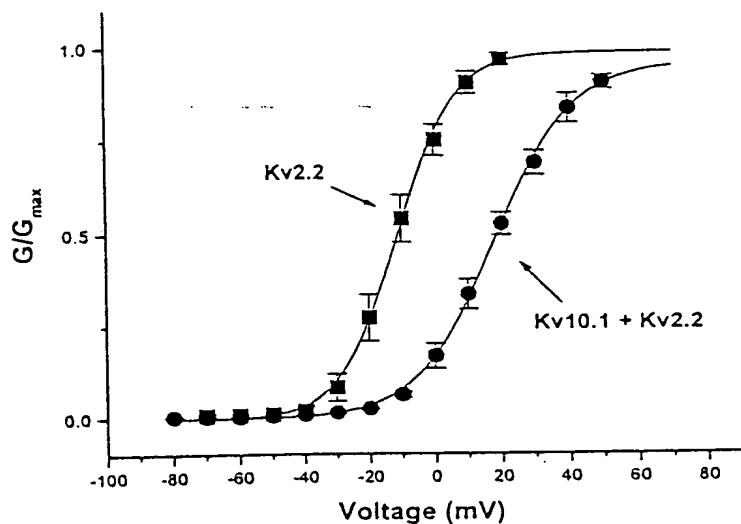


Figure 4

A.



B.

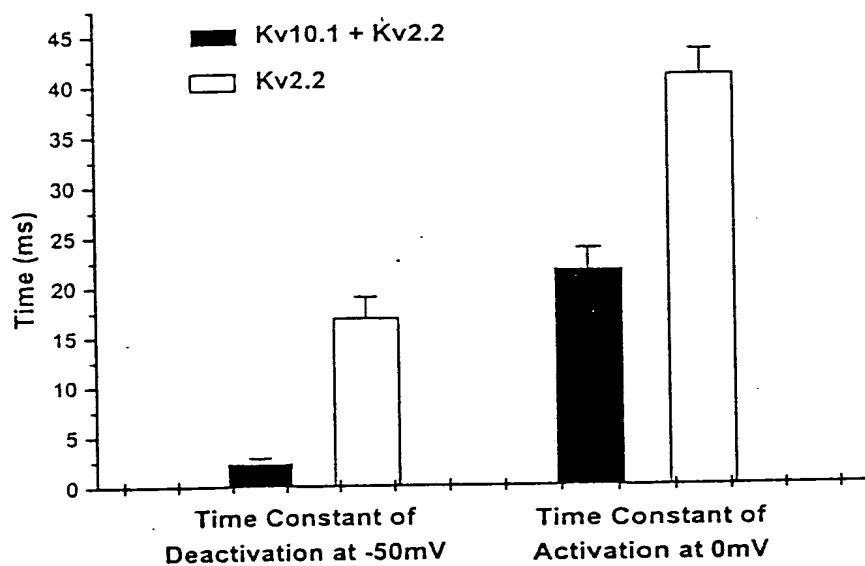


Figure 5

Kv10.1 mRNA	TR= Trace levels
TR	Whole Brain
-	Fetal Brain
-	Trigeminal
-	DRG
TR	Frontal cortex
-	Hippocampus
+	Spinal cord
+	Substantia Nigra
-	Hypothalamus
-	Cerebellum
-	Kidney
-	Heart
++	Testis
-	Spleen
-	Pancreas
-	Bladder
+	Prostate
-	Liver
-	Skeletal Muscle
-	Placenta
-	Colon
+	Retina